

WHAT IS CLAIMED IS:

1. A semiconductor device manufacturing method, comprising:
providing a semiconductor wafer provided with a plurality of metal portions on a
5 surface of the semiconductor wafer;
suspending the semiconductor wafer in a reflow furnace;
reflowing the metal portions on the surface of the semiconductor wafer suspended
in the reflow furnace so that the metal portions form conductive terminals using a first
heater disposed in the reflow furnace and facing the surface of the semiconductor wafer.
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2. The semiconductor device manufacturing method of claim 1, wherein the
semiconductor wafer is suspended by a plurality of pins.
3. The semiconductor device manufacturing method of claim 2, wherein the
15 pins are mounted on a stage that is heated by a heating plate disposed under the stage
4. The semiconductor device manufacturing method of claim 1, wherein the
semiconductor wafer is heated by a second heater disposed so as to face a lateral edge of
the semiconductor wafer.
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5. A semiconductor device manufacturing method, comprising:
providing a semiconductor wafer provided with a pair of first wirings on a front
surface of the semiconductor wafer;
attaching a first supporting substrate to the front surface of the semiconductor
25 wafer;
attaching a second supporting substrate to a back surface of the semiconductor
wafer;
partially exposing the first wirings by forming a groove through the
semiconductor wafer;
30 forming second wirings connected to exposed portions of the first wirings and
extending to a surface of the second supporting substrate;

forming a plurality of metal portions on the second wirings;
supporting the semiconductor wafer using a plurality of pins that are in contact
with the first supporting substrate; and
reflowing the metal portions so as to form conductive terminals using a first
5 heater disposed to face the back surface of the semiconductor wafer while the
semiconductor wafer is supported by the pins.

6. The semiconductor device manufacturing method of claim 5, wherein the
pins are mounted on a stage that is heated by heating plates disposed underneath the
10 stage.

7. The semiconductor device manufacturing method of claim 5, wherein the
semiconductor wafer is heated by a second heater disposed so as to face a lateral edge of
the semiconductor wafer.

15 8. A semiconductor device manufacturing method, comprising:
preparing a semiconductor wafer provided with a pair of first wirings on a front
surface of the semiconductor wafer;
attaching a supporting substrate to the front surface of the semiconductor wafer;
20 partially exposing the first wirings by forming a groove from a back surface of the
semiconductor wafer;
forming second wirings connected to exposed portions of the first wirings and
extending to the back surface of the semiconductor wafer;
forming a plurality of metal portions on the second wirings,
25 supporting the semiconductor wafer using a plurality of pins that are in contact
with the supporting substrate; and
reflowing the metal portions so as to form conductive terminals using a first
heater disposed to face the back surface of the semiconductor wafer while the
semiconductor wafer is supported by the pins.

30 9. The semiconductor device manufacturing method of claim 8, wherein the

pins are mounted on a stage that is heated by heating plates disposed underneath the stage.

10. The semiconductor device manufacturing method of claim 8, wherein the
5 semiconductor wafer is heated by a second heater disposed so as to face a lateral edge of the semiconductor wafer.